

REMARKS

Favorable reconsideration, reexamination, and allowance of the present patent application are respectfully requested in view of the foregoing amendments and the following remarks.

All Claims Define Allowable Subject Matter

In the Office Action, Claims 389-405, 410, and 414-420 were rejected under 35 U.S.C. §102(b), as reciting subject matter that is allegedly anticipated by U.S. Patent No. 4,040,848, issued to Greskovich ("*Greskovich*"). This rejection is respectfully traversed for the following reasons.

Greskovich describes a wafer boat sintering process that includes sintering a plurality of Boron particles with a plurality of Si powder particles to arrive at a final product. The rejection is in error because the resulting product does not include, among other features, a silicon compound comprising at least one silicon atom and in which silicon is a majority. The mixture of Boron and Si is just that: a mixture. The *Greskovich* body is a sintered mix of both Boron and Si particles which have not formed a chemical bond with each other, but at best can be considered a mix or slurry of particles. In addition, it should be noted that Boron is not a metal. Finally, with respect to any possible future combination of references, Applicant wishes to note that the Boron in the *Greskovich* body would act as a dopant to wafers that are being processed, which would contaminate any wafers or chips that are being processed and destroy the purpose of the wafer boat or carrying device.

For at least the above reasons, it is respectfully submitted that the rejection under 35 U.S.C. §102(b) over *Greskovich* is in error. Withdrawal of the rejection is respectfully requested.

Claims 389, 391, 393, 399, and 405 were rejected under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent No. 6,284,997, issued to Zehavi ("*Zehavi*"). This rejection is

respectfully traversed for the following reasons.

Zehavi fails to disclose or teach at least the feature of forming a wafer boat perform consisting of one of a tube, a rod, and a plate. Instead, the *Zehavi* reference includes multiple structures that are welded together. The novel process and techniques used by the present invention to create a wafer boat preform that consists of one of a tube, rod or plate, allows the wafer boat to be a single unitary structure which is much stronger, more reliable, and less likely to be contaminated (among other features) than the welded plates and rods disclosed in *Zehavi*.

For at least the above reasons, it is respectfully submitted that the rejection under 35 U.S.C. § 102(b) over *Zehavi* is in error. Withdrawal of the rejection is respectfully requested.

In the Office Action, Claims 406-408 were rejected under 35 U.S.C. § 103(a) as allegedly obvious over *Greskovich* or *Zehavi* in view of U.S. Patent No. 4,203,940 to Dietze (*Dietze*). This rejection is respectfully traversed for at least the following reasons.

Dietze fails to make up for the above noted deficiencies of both *Greskovich* and/or *Zehavi*. Specifically, *Dietze* fails to disclose or teach, either alone or in combination with *Greskovich* or *Zehavi*, at least the features of selecting a silicon material from the group consisting of Si, Si and SiC wherein silicon is a majority, $\text{Si}_x\text{Ge}_{1-x}$, $\text{Si}_x(\text{SiO}_2)_{1-x}$, $\text{Si}_x(\text{Oxide})_{1-x}$, $\text{Si}_x\text{M}_{1-x}$, and $\text{Si}_x\text{A}_{1-x}$, wherein M is a metal, A is a metal alloy, and $0 < x < 1$, or the feature of forming a wafer boat perform consisting of one of a tube, a rod, and a plate. Because none of the references, either alone or in combination, disclose or teach each and every feature of Applicant's claims, the rejection based on *Greskovich* or *Zehavi* in view of *Dietze* is in error. Withdrawal of the rejection under U.S.C. § 103(a) over *Greskovich* or *Zehavi* in view of *Dietze* is respectfully requested.

Claims 411-413 were rejected under 35 U.S.C. § 103(a) as allegedly obvious over the *Greskovich* in view of U.S. Patent No. 6,835,633 to Boyd (*Boyd*). This rejection is respectfully

traversed for at least the following reasons.

Boyd fails to make up for the above noted deficiencies of *Greskovich*. Specifically, *Boyd* fails to disclose or teach, either alone or in combination with *Greskovich*, at least the features of selecting a silicon material from the group consisting of Si, Si and SiC wherein Si is a majority, $\text{Si}_x\text{Ge}_{1-x}$, $\text{Si}_x(\text{SiO}_2)_{1-x}$, $\text{Si}_x(\text{Oxide})_{1-x}$, $\text{Si}_x\text{M}_{1-x}$, and $\text{Si}_x\text{A}_{1-x}$, wherein M is a metal, A is a metal alloy, and $0 < x < 1$.

Because neither of the references, either alone or in combination, disclose or teach each and every feature of Applicant's claims, the rejection of claims 411-413 based on *Greskovich* in view of *Boyd* is in error. Withdrawal of the rejection under U.S.C. § 103(a) over *Greskovich* in view of *Boyd* is respectfully requested.

Claim 421 was rejected under 35 U.S.C. § 103(a) as allegedly obvious over the *Greskovich* in view of U.S. Patent No. 6,555,587 to Loxley (*Loxley*). This rejection is respectfully traversed for at least the following reasons.

Loxley fails to make up for the above noted deficiencies of *Greskovich*. Specifically, *Loxley* fails to disclose or teach, either alone or in combination with *Greskovich*, at least the features of selecting a silicon material from the group consisting of Si, Si and SiC wherein Si is a majority, $\text{Si}_x\text{Ge}_{1-x}$, $\text{Si}_x(\text{SiO}_2)_{1-x}$, $\text{Si}_x(\text{Oxide})_{1-x}$, $\text{Si}_x\text{M}_{1-x}$, and $\text{Si}_x\text{A}_{1-x}$, wherein M is a metal, A is a metal alloy, and $0 < x < 1$.

Because neither of the references, either alone or in combination, disclose or teach each and every feature of Applicant's claims, the rejection of claim 421 based on *Greskovich* in view of *Loxley* is in error. Withdrawal of the rejection under U.S.C. § 103(a) over *Greskovich* in view of *Loxley* is respectfully requested.

Conclusion

For at least the foregoing reasons, Applicant respectfully submits that this patent

application is in condition for allowance. An early indication of the allowability of the patent application is therefore respectfully solicited.

If Examiner Nguyen believes that a telephone conference with the undersigned would expedite passage of the present patent application to issue, she is invited to call on the number below.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and the Commissioner is hereby authorized to charge fees necessitated by this paper, and to credit all refunds and overpayments, to the Deposit Account listed in the Amendment After Final filed in this application on March 15, 2007.

Respectfully submitted,
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